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- - REMARKS - -

Claims 15-28 remain under consideration.

A. Claims 15-28 were rejected as indefinite under 35 U.S.C. §112 second paragraph.

The rejection of claims 15-28 as indefinite is traversed. Claim 15 clearly and definitely describes that the *deformable* reaction disc *forms* around the piston. This effect is illustrated graphically in FIGS. 2 and 3. In FIG. 2, the deformable reaction disc 96 is undeformed and in a resting state. In FIG. 3, forces have been applied to the deformable reaction disc 96, and the disc has deformed, forming around the piston. Claims 16-28 depend directly or indirectly from claim 15, and therefore claims 16-28 are not indefinite. Claim 18 has been amended to correct a deficiency in the dependency. Claim 19 has been amended to obviate any confusion.

Withdrawal of the rejections to claims 15-28 under 35 USC 112 is requested.

B. Claims 15-20 were rejected under 35 USC §103(a) as unpatentable over Endo or Levrai in view of Suzuki.

The rejection of claims 15-20 under 103(a) as unpatentable over Endo or Levrai in view of Suzuki is traversed.

In order for this 103(a) rejection to be maintained, each and every element of the claimed invention must be taught or suggested in at least as great detail as claimed. Because the prior art, alone or in combination, does not teach or suggest at least a "deformable reaction disc [that] forms around said piston and within said thrust assembly when the pressure differential acts on said piston, said deformable reaction disc deforming based on the amount of the pressure differential, and said deformable reaction disc contributing to determining a braking force at which passage from the first braking state to the second braking state takes place" as claimed in claim 15. See page 14, lines 1-11 of the specification.

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The Examiner correctly notes that neither Endo nor Levrai teach or suggest forming the reaction disc around the piston. The Examiner also correctly notes that Suzuki teaches or suggests forming a reaction disc around the piston. However, the disc in Suzuki is not deformed to contribute to determine the braking force at which passage from the first braking state to the second braking state takes place, as required by claim 15.

Rather, Suzuki teaches or suggests that deformation of the disc accompanies an opening or closing of communication between the "constant pressure chamber 4 on one side of the valve body and the variable pressure chamber 5 located on the other side..." See Suzuki, column 4, lines 31-49.

In addition, Suzuki teaches that deformation of the reaction disc is required to actuate the braking system. See, Suzuki column 4, lines 31-49. In contrast, the claimed reaction disc deforms "based on the amount of the pressure differential" and therefore deforms only *after* braking has begun. As illustrated in FIG. 2, the reaction disc 96 is not actuated, and distance gap x separates the thrust assembly and operating assembly. Upon instantiating braking pressure, gap x closes, and upon closing of x, the pressure begins exerting on the reaction disc 96. Indeed, claim 15 requires that the plunger controls "the evolution of said pressure differential by switching means." This element is neither taught nor suggested by the combination of the references.

Therefore, the combination of Endo or Levrai with Suzuki cannot teach or suggest each and every claim limitation, and the rejection must fall.

Thus, claim 15 is patentable over the prior art. Claims 16-20 depend directly or indirectly from claim 15 and are therefore patentable over the prior art for at least the same reasons.

Withdrawal of the rejections to claims 15-20 is requested.

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C. Claims 15, 16, 19 and 20 were rejected under 35 USC §103(a) as unpatentable over Gauthier in view of Suzuki.

The rejection of claims 15, 16, 19 and 20 under 103(a) is traversed.

The above discussion of Suzuki is equally applicable to this rejection.

Additionally, and contrary to the Examiner's assertion, Gauthier does not teach or suggest that the disc is "within and part of the thrust assembly."¹ Indeed, at column 2, lines 3-15, Gauthier specifically teaches that the disc is "arranged inside the cover" and that the cover is "received in an annular groove made in the hollow piston." Thus, rather than having the disc disposed within the thrust assembly, as claimed in claim 15, the Gauthier disc is disposed within the piston.

Claim 15 is patentable over the prior art for at least the reasons above, considering the comments directed to Suzuki, as well as Gauthier. Claims 16, 19 and 20 depend directly or indirectly from claim 15 and are therefore allowable over the prior art for at least the same reasons.

Withdrawal of the rejections to claims 15, 16, 19, and 20 is requested.

D. Claims 15, 16, 19 and 20 were rejected under 35 USC §103(a) as unpatentable over either Japanese Patent 10,230,841, Inoue or Tobisawa in view of Suzuki.

The rejections of claims 15, 16, 19, and 20 under 103(a) as unpatentable over any of the Japanese patent, Inoue, or Tobisawa in view of Suzuki is traversed.

¹ Page 4 of the office action, final paragraph, 5 lines from the last line

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The elements of Suzuki are addressed in the above responses. Suzuki does not teach or suggest "deformable reaction disc [that] forms around said piston and within said thrust assembly when the pressure differential acts on said piston, said deformable reaction disc deforming based on the amount of the pressure differential, and said deformable reaction disc contributing to determining a braking force at which passage from the first braking state to the second braking state takes place" as claimed in claim 15.

This element is not taught or suggested in the Japanese reference, or Inoue or Tobisawa. Thus, the combination of the Japanese reference or Inoue or Tobisawa with Suzuki cannot possibly teach or suggest the limitation.

As noted by the Examiner on page 6 of the office action, neither the Japanese reference nor Inoue or Tobisawa disclose that the reaction disc is formed around the piston, with the housing having a dimension greater than the end of the piston, providing the cavity for absorbing the deformations of the reaction disc. The Examiner does not address each case in detail, relying on an assertion that Inoue and Tobisawa "disclose similar limitations." Applicants disagree with this characterization of the references, but accept the characterization in an effort to expedite prosecution.

The Examiner relies on Suzuki for the teaching of a deformable reaction disc that forms around the piston with the deforming based on the amount of the pressure differential, and the deformable reaction disc contributing to determining a braking force at which passage from the first braking state to the second braking state takes place. However, as described above, Suzuki simply does not teach or suggest this limitation.

Rather, Suzuki teaches or suggests that deformation of the disc accompanies an opening or closing of communication between the "constant pressure chamber 4 on one side of the valve body and the variable pressure chamber 5 located on the other side..."
See Suzuki, column 4, lines 31-49.

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In addition, Suzuki teaches that deformation of the reaction disc is required to actuate the braking system. See, Suzuki column 4, lines 31-49. In contrast, the claimed reaction disc deforms "based on the amount of the pressure differential" and therefore deforms only *after* braking has begun. As illustrated in FIG. 2, the reaction disc 96 is not actuated, and distance gap x separates the thrust assembly and operating assembly. Upon instantiating braking pressure, gap x closes, and upon closing of x, the pressure begins exerting on the reaction disc 96. Indeed, claim 15 requires that the plunger controls "the evolution of said pressure differential by switching means." This element is neither taught nor suggested by the combination of the references.

E. Claims 21-28 are allowable if rewritten to comply with 35 U.S.C. §112 second paragraph and rewritten in independent form.

The objection to claims 21-28 is traversed. The claims have been amended to comply with the 35 USC 112 rejections as outlined above. Claims 21-28 are dependent claims, depending from allowable claims as outlined above, and are therefore allowable.

Withdrawal of the objections to claims 21-28 is requested.

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CONCLUSION

Examiner Lopez's rejections of claims 15-28 have been obviated by amendment to claims 15-28 and by Applicant's arguments. Applicant respectfully submits that claims 15-28, as amended, herein fully satisfy the requirements of 35 U.S.C. §§102, 103 and 112, as well as 37 CFR 1.126. In view of the foregoing, favorable consideration and early passage to issue of the present application is respectfully requested.

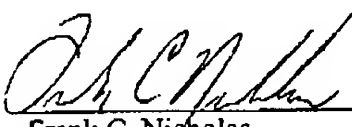
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